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# PORTABLE TRAFFIC SIGNALS

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**John Thomas, Inc.**

## Portable Traffic Signals

- JTI has been in the portable signal business for over 20 years. We manufacture the ADDCO PTS-2000, and rent and sell the signals across the United States and Canada.





- **INDOT STANDARD SPECIFICATIONS NOW PROVIDE FOR THE USE OF PORTABLE TRAFFIC SIGNALS.**



## Portable Traffic Signals

Portable traffic signals have been in use since the mid-1980's.

### Early Limitations:

- Diesel power
- 120 volt lamps
- Hardwire interconnection
- Matched pairs of trailers
- Fixed-time operation
- Limited traffic activated modes



## Portable Traffic Signals

Portable traffic signals have been in use since the mid-1980's.

Over time, use of the PTS increased

- Many improvements were made
- Additional manufacturers entered the market
- States adopted use



### Common features of modern PTS:

- Meet NEMA TS5 Standard
- Trailer-mounted
- Radio communication between trailers
- Minimum of two 3-section signal heads
  - With visors and back plates
  - Rotate 180 degrees
- One on the mast arm and one on the vertical mast





## Portable Traffic signals

One signal head on the mast arm and one on the vertical mast





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- NEMA TS5 Standard
- Trailer-mounted
- Radio communication between trailers
- Minimum of two 3-section signal heads
  - With visors and back plates
  - Rotate 180 degrees
- One on the mast arm and one on the vertical mast
- Both signal heads on mast arm





## Portable Traffic Signals

Both signal heads on mast arm





## Portable Traffic Signals

### Common features of modern PTS:

- 17' clearance over roadway
- Leveling jacks to provide stability
- Withstand 80mph wind loads





## Solar powered

- Battery powered with solar charging
- 21 days run time without solar power
- Must run in fault mode (red flash) for 24 hours
- Tilt and rotate solar array for optimum performance
- On-board 120 volt charger

## Portable Traffic Signals







## Portable Traffic Signals

21 days run time without solar-INDOT test





# Portable Traffic Signals

## Quick Set-up

- Signal mast and mast arm are raised into operating position by means of electric or electric-hydraulic actuation
- PTS can be set up and running within 20 minutes





### Signal Operation

- Meets MUTCD, NEMA TS2 and new NEMA TS5 standards
- Pre-timed or traffic actuated modes
- 8 to 16 phase operation
- Programmable min. & max. green times
- Accommodates long red clearance times
- Yellow change interval accommodates speed of traffic







## Portable Traffic Signals

### Vehicle Detection Capabilities

- Loops
- Temporary loops
- Doppler (motion sensors)
- Wireless sensors
- Video detection





## Portable Traffic Signals

### Emergency Pre-Emption

- Optical
- Audial
- GPS

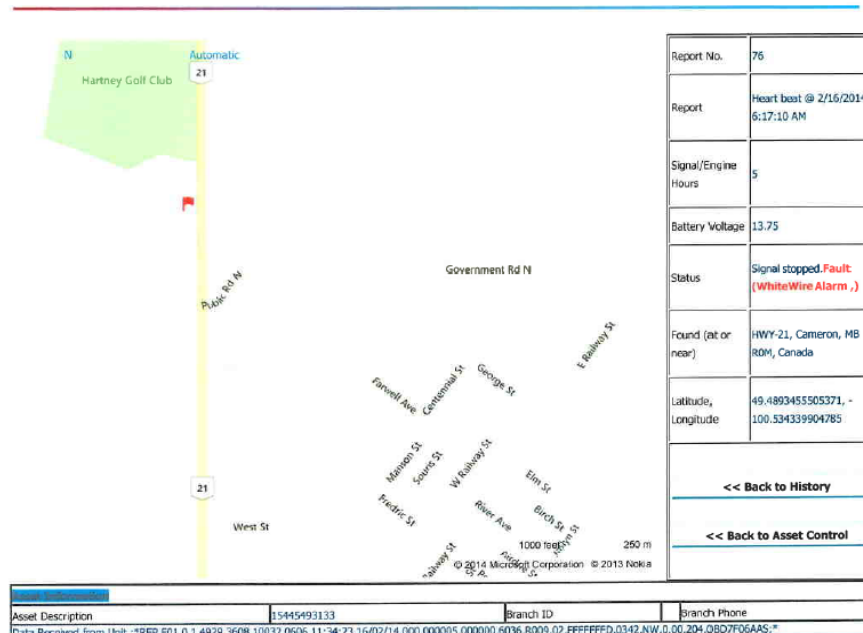




# Portable Traffic Signals

## Remote Monitoring

- GPS location
- Monitor battery voltage
- Monitor PTS status
- Report low battery or PTS fault mode
- Notify predetermined users by text or email





## PTS Uses:

- Work zones with one-lane, two-way traffic
  - One PTS at each end of work zone
  - Additional PTS required for intersecting approaches within the work zone (requires multi-phase operation)

## Portable Traffic Signals





## PTS Uses:

- Temporary intersection control
  - Three or four approaches
  - Provide turn arrows as required
  - Provide pedestrian signals as required



## Portable Traffic Signals





### PTS Uses:

- Temporary replacement of existing signal
  - Connect to existing cabinet controller
  - Temporary replacement of damaged/missing signal
  - Temporarily replace existing signal during intersection construction







## Portable Traffic Signals

### Training and Support

- On-site training
- 24/7 remote technical assistance
- Technicians are IMSA  
Traffic Signal Field Technician Certified





**THANK YOU**

**QUESTIONS?**

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